

MESSRS.**SPECIFICATION FOR APPROVAL****承 认 书**

Product	DYNAMIC SPEAKER
Part No.	HDK-1808AA-3C8(RoHS)
Customer	
Customer Part No.	

Approved By	Checked By	Made By
王台平 FEB-18-2016	曹丽萍 FEB-18-2016	LILY FEB-18-2016

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EDITION:1.1

1. Specification

HDK-1808AA-3C8(RoHS)

ITEM		SPECIFICATIONS	
01	Type	Dynamic speaker	
02	Dimension	External diameter 18 mm	
03	Rated Input Power	0.8W	
04	Max. Input Power	1.0W for 1 minute	
05	Impedance	8 ohm ± 15% at 1500Hz.	
06	Resonance Frequency (Fo)	800Hz ± 20% at Fo, 1V	
07	Sensitivity (S.P.L.)	89dB(0.1W/0.1m) ± 3 dB	at AVE 0.8K 1.0K 1.2K 1.5KHz
		96dB (0.8W / 0.1m) ± 3 dB	
08	Frequency Range	Fo – 20KHz	
09	Total Harmonics Distortion	Max 8 % at 1 KHz,0.8W.	
10	Voice Coil	Diameter 10.25 mm	
11	Magnet	Rare earth permanent (Nd-Fe-B) magnet Φ9.8 x 1.2 mm	
12	Weight	2.8g ± 0.2g	
13	Appearance	Should not exist any obstacle to be harmful to normal operation; damages, cracks, rusts and distortions, etc.	
14	Operation Test	Must be normal at program source – 0.8W	
15	Buzz, Rattle, etc.	Should not be audible at 2.53V sine Wave between Fo to 20KHz	
16	Polarity	When positive voltage is applied to the terminal marked (+), diaphragm should move to the front.	
17	Terminal Strength	Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection.	
18	Temperature	Operating temperature: -20℃ to +70℃ Storage temperature: -30℃ to +80℃	

2-1. Test Condition Standard

Temperature : 15 ~ 35°C

Relative humidity : 25% ~ 85%,

Atmospheric pressure : 860mbar to 1060mbar.

Basic

Temperature : 20±3°C

Relative humidity : 60% ~ 70%,

Atmospheric pressure : 860mbar to 1060mbar

2-2. Standard Test Fixture

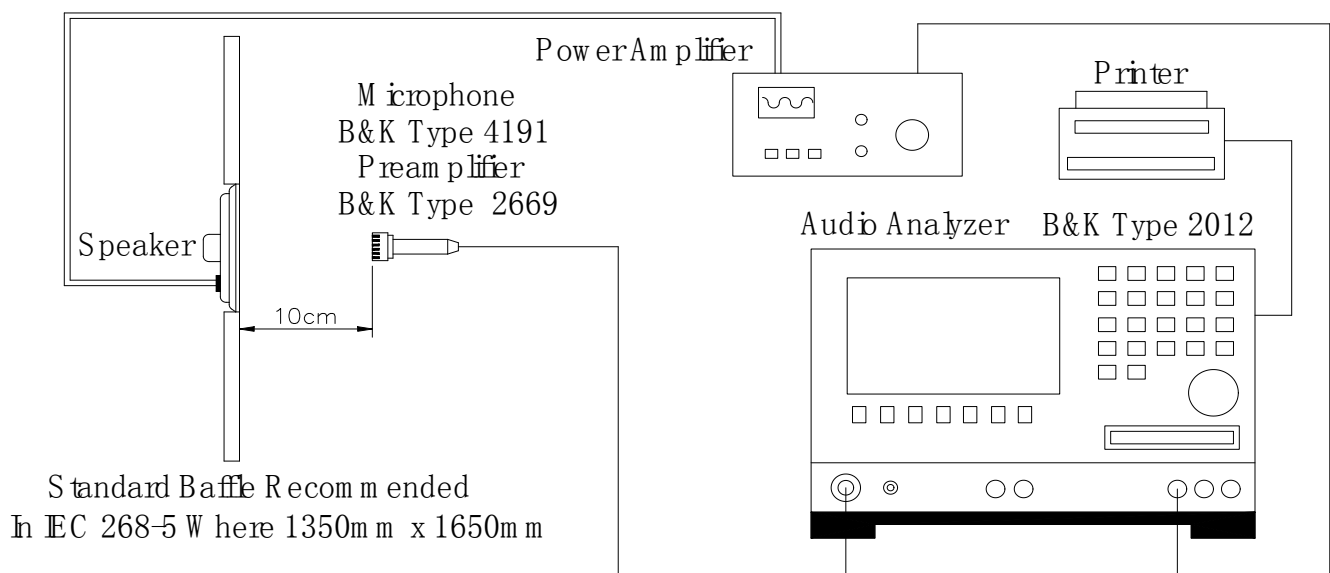
1. Input Power : 0.8W (2.53V)

2. Zero Level : -dB

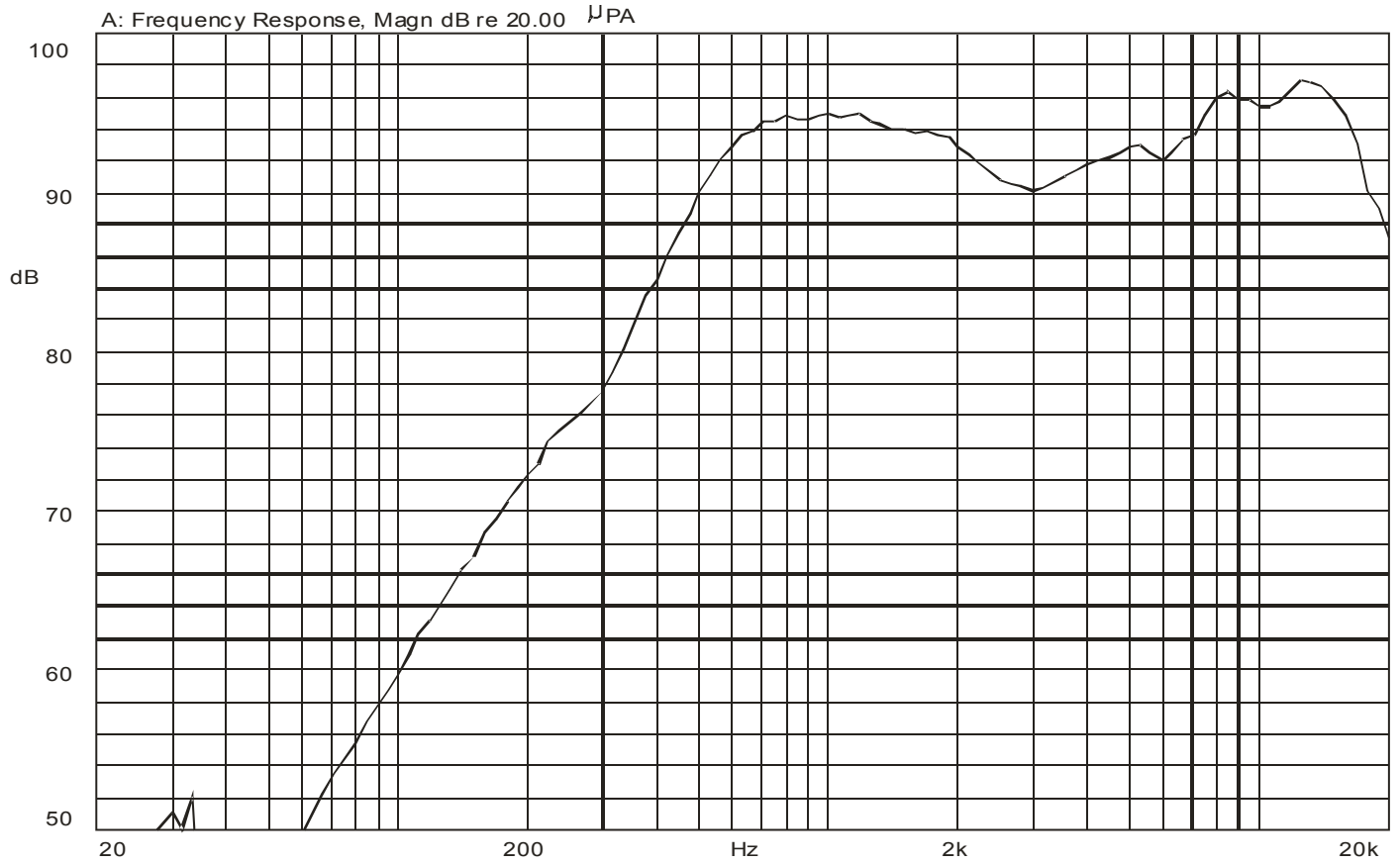
3. Mode : SPEAKER

4. potentiometer Range : 50dB

5. Sweep Time : 0.5sec



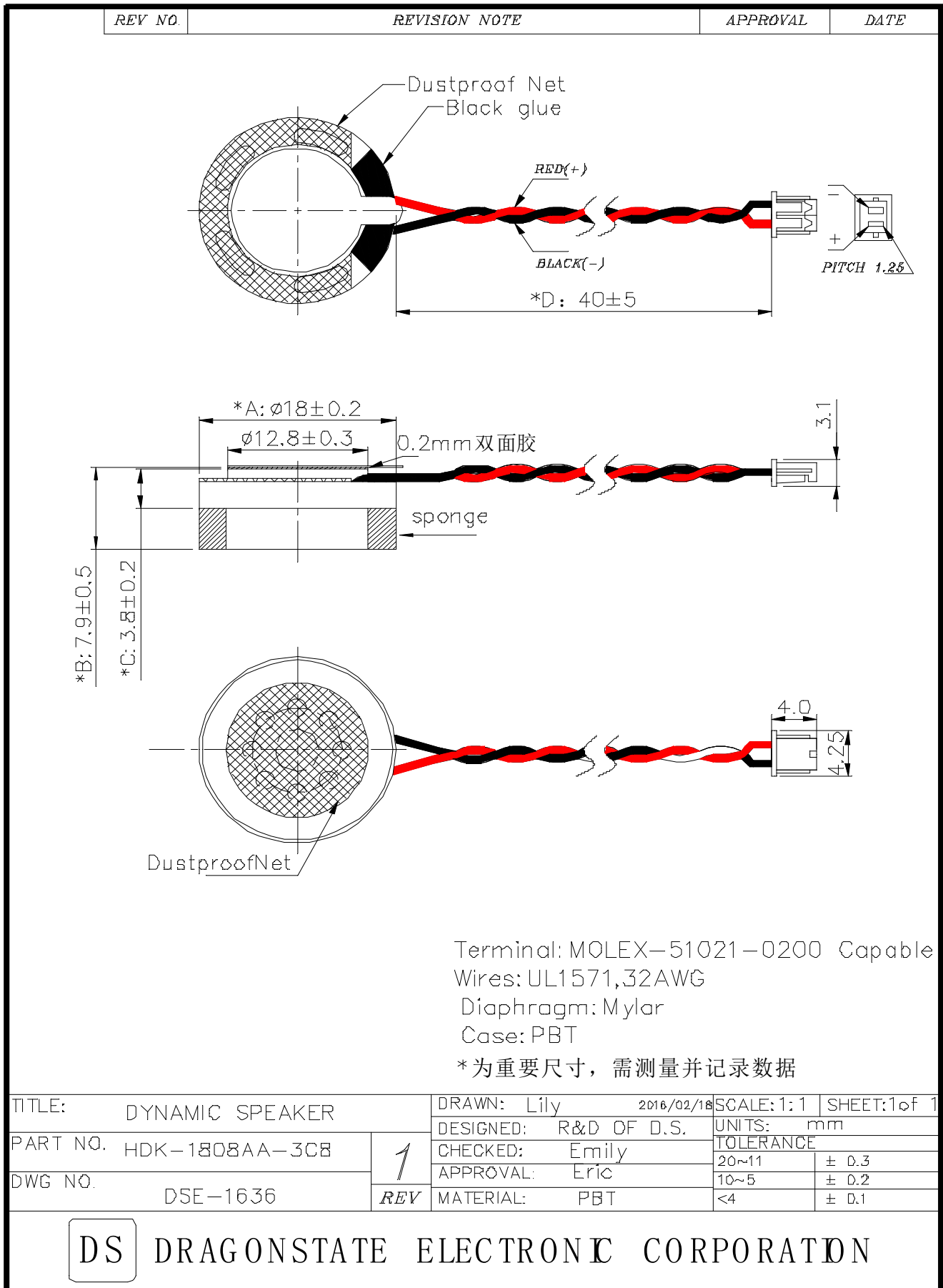
2-3.Frequency Response Curve



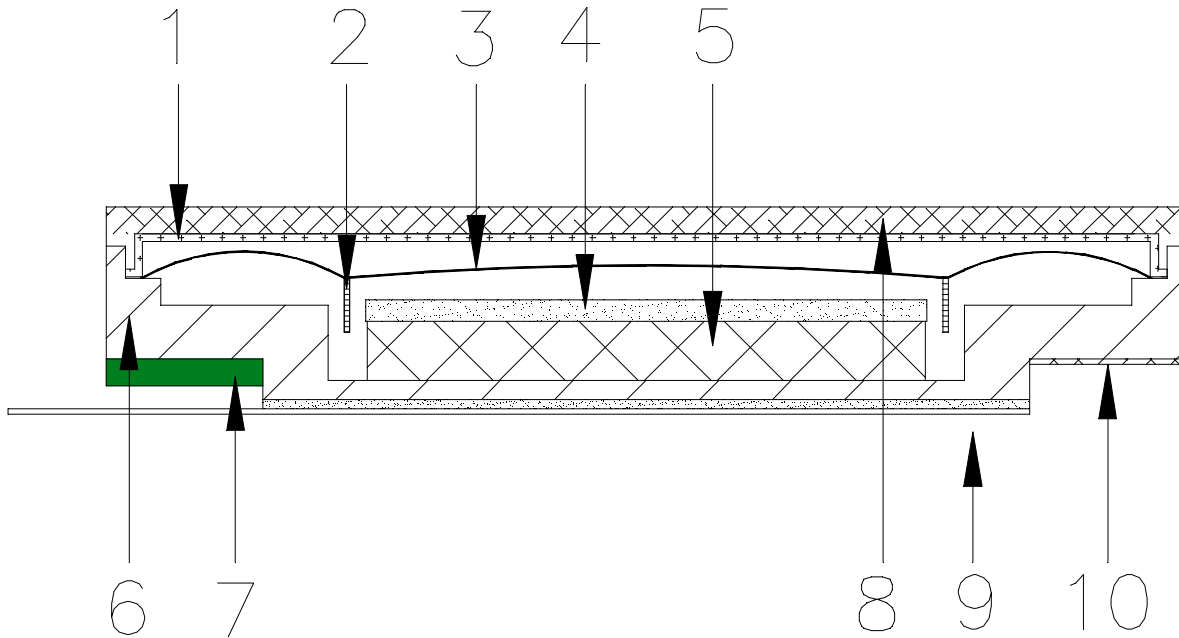
Mode: SPEAKER



3.Dimension

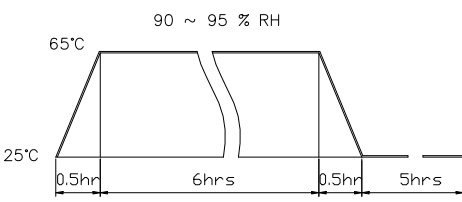


4.Material and Structure



NO	PART NAME	MATERIAL	Q'TY
1	CAP	SUS304	1
2	VOICE COIL	COPPER	1
3	DIAPHRAGM	PEN	1
4	PLATE	SPCC	1
5	MAGNET	Nd-Fe-B	1
6	FRAME	PBT	1
7	TERMINAL	MOLEX-51021-0200	1
8	GASKET	DUSTROOF NET	1
9	GASKET	ADHESIVE	1
10	ACOUSTIC CLOTH	DUSTROOF NET	1

5. Reliability Test

Items.		Specifications
01	High temp. Test	Keep 96 hours at $+80^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
02	Low temp. Test	Keep 96 hours at $-30^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and leave 3 hours in normal temperature and then check
03	Humidity test	Keep 96 hours at $+60^{\circ}\text{C} \pm 3^{\circ}\text{C}$ relative humidity 95% and leave 3 hours in normal temperature and then checked.
04	Temp./Humidity cycle	The part shall be subjected 5 cycles. One cycle shall be 12 hours and consist of; 
05	Thermal cycle test.	Low temperature: $-30^{\circ}\text{C} \pm 3^{\circ}\text{C}$, temperature: $+70^{\circ}\text{C} \pm 3^{\circ}\text{C}$, cycle: 1 hour/cycle each, and then keep 5 cycles in a room.
06	Vibration	10~200~10Hz sin-wave sweep 15min. 5G(constant) X, Y, Z 3 direction. 2 hours each, total 6 hours.
07	Fix drop test	Fix on jig. Then drop from 152cm height to the concrete floor X, y, z 6 direction. 5 times each, total 30 times.
08	Free drop test	Free drop from 100cm height to the concrete floor X, y, z 6 direction. 1 times each, total 6 times.
09	Rated Power test	Rated Power white noise is applied for 96 hours
10	Max Power test	Max power 1 min on - 2 min off 10 cycles.
11	Terminal strength test	Capable of withstand 1kg load for 30 seconds without resulting in any damage or rejection.

Criterion:

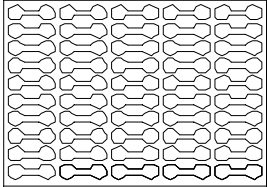
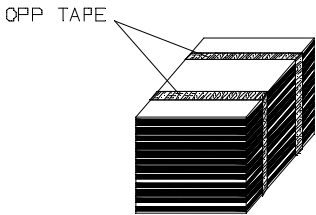
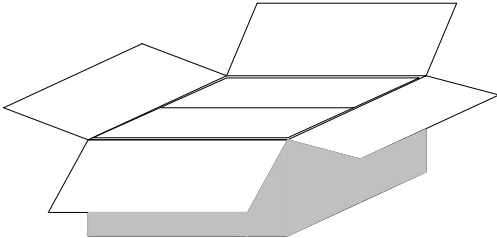
After these test, the change of S.P.L shall be within ± 3 dB.

SOLDERING CONDITION

Recommend using constant branding iron in 15 ~ 30W, and in temperature range $350 \pm 10^{\circ}\text{C}$.

Soldering time not over 3 seconds.

6.Packing

REV NO.	REVISION NOTE	APPROVAL	DATE
	 Cover(325*245*5mm) Material: Paper		
	  Box(325*245*13mm) 100pcs Material: Paper+Epe		
	 Middle(325*245*155mm) 1000pcs(10*100pcs) Material: Paper+Epe		
	  Outer Box(490*360*350mm) 4000pcs(4*1000pcs) Material: Paper		
单位: mm			
TITLE: packing		DRAWN: Lily 2015/09/25	
PART NO. DWG NO.		1	
		DESIGNED: R&D OF D.S.	
		CHECKED: Emily	
		APPROVAL: Eric	
REV		MATERIAL: ***	
		SCALE: 2:1	SHEET: 1 of 1
		UNITS: mm	
		TOLERANCE	
		20~11	± 0.3
		10~5	± 0.2
		<4	± 0.1
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